

WHAT IS CLAIMED IS:

1. A rotatable image-capturing device for a handheld electronic device, comprising:

a lens with an optical axis;

5 a photo-sensitive element set up at one end of the optical axis;

a reflector set up at another end of the optical axis, reflector forming an included angle with the optical axis for reflecting image from an object through the lens onto the photo-sensitive element; and

a rotatable reflector seat rotatably set up around the lens with the reflector attached to the reflector seat such that the reflector can rotate around the lens, wherein the reflector can also be moved toward the lens to protect the lens from dust and contaminant.

2. The image-capturing device of claim 1, wherein the photo-sensitive element comprises a complementary metal-oxide-semiconductor (CMOS).

15 3. The image-capturing device of claim 1, wherein the photo-sensitive element comprises a charge-coupled device (CCD).

4. The image-capturing device of claim 1, wherein the device further comprises at least a reflector support lever for pivotably linking the reflector to the rotatable reflector seat such that the reflector, which is pivoted to the rotatable reflector seat, can move closer or farther away from the seat within an angular movement set by the reflector support lever.

20 5. The image-capturing device of claim 1, wherein the reflector has a planar reflecting surface.

6. The image-capturing device of claim 1, wherein the reflector has a curved reflecting surface.

7. The image-capturing device of claim 1, wherein the included angle is 45 degrees.

5        8. The image-capturing device of claim 1, where the optical axis of the lens is along a width direction of the handheld electronic device.

9. The image-capturing device of claim 1, wherein the optical axis of the lens is along a length direction of the handheld electronic device.

10       10. The image-capturing device of claim 8, wherein the handheld electronic device is a clamshell type mobile phone.

11. The image-capturing device of claim 9, wherein the handheld electronic device is a bar type mobile phone.

12. A handheld electronic device, comprising:

        a main body casing having a plurality of buttons for inputting data;

15        a lens set up on one side edge of the main body casing, wherein the lens has an optical axis;

        a photo-sensitive element set up inside the main body casing at one end of the optical axis of the lens; and

        a reflector set up on the main body casing at another end of the optical  
20       axis of the lens such that a reflecting surface on the reflector forms an included angle with the optical axis for reflecting an image of an object through the lens and onto the photo-sensitive element, wherein the reflector can be moved toward the lens to protect the lens from dust and contaminant.

13. The handheld electronic device of claim 12, wherein the device further comprises a rotatable reflector seat set up on the main body casing around the lens with the reflector attached thereto such that the reflector on rotatable reflector seat can rotate around the lens.

5           14. The handheld electronic device of claim 13 further comprising at least a reflector support lever that pivotably links the reflector and the rotatable reflector seat together.

15. The handheld electronic device of claim 14, wherein an end section of the reflector further comprises a connecting rod for pivoting to the rotatable reflector seat.

10           16. The handheld electronic device of claim 13, wherein the photo-sensitive element is a CCD (charge-coupled device).

17. The handheld electronic device of claim 13, wherein the photo-sensitive element is a CMOS (complementary metal-oxide-semiconductor).

15           18. The handheld electronic device of claim 13, wherein the included angle is 45 degrees.

19. The handheld electronic device of claim 13, wherein the optical axis of the lens extends along at least one of width and length directions of the handheld electronic device.

20. A handheld electronic device comprising:

20           a pivot structure;

            a flip cover connected to the pivot structure, a display mounted on the flip cover;

a main body casing connected to the pivot structure in a manner that the main body casing is pivotable relative to the flip cover, a keypad mounted on the main body casing;

5 a lens and a photo-sensitive element fixedly mounted in the pivot structure, wherein an optical axis of the lens extends in a direction for which the pivot structure extends;

a reflector mounted on the pivot structure and forming an included angle with and rotatable about the optical axis of the lens so that the reflector can reflect images of objects from different directions along the optical axis of the lens through  
10 the lens to reach on the photo-sensitive element.